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www.wsdot.wa.gov/maintenance/ivm.htm

Frequently Asked Questions

Q. Why does WSDOT use herbicides for roadside maintenance?

- A. WSDOT uses herbicides, mowing, planting and landscaping practices that pay dividends in reduced vegetation control issues. WSDOT believes that herbicide use should be responsible, responsive, and cost effective. When reasonable, herbicide use should be minimized. However, when used responsibly, herbicides:
 - ▶ Enhance the efficiency and effectiveness of highway roadside maintenance.
 - ► Control pavement and shoulder maintenance and replacement costs by preventing weeds from growing under the pavements.
 - ▶ Help control non-native invasive plant species as required by state law.

Q. Why use herbicides at all?

- **A.** WSDOT must balance several issues when determining the most responsible and cost effective means for roadside weed control. While WSDOT considers the potential risks of herbicide use, we also consider the risks of other roadside maintenance methods. Considerations include:
 - ▶ Impacts on people, including driver safety, pedestrian safety, and employee safety.
 - ▶ Impacts to the environment, including streams, drinking water sources, wetlands, lakes, noxious weed control, and fire prevention.
 - ▶ Impacts to the highway, including pavement preservation.
 - ▶ Impacts to taxpayers.

The cost of eliminating herbicide use entirely is high. WSDOT would need to hire more staff, work more hours, and purchase more equipment.

Q. What does WSDOT mean by the "responsible, responsive and cost effective" use of herbicides?

A. Responsible:

WSDOT reduced the width of the vegetation-free zone at the pavement edge from 8 feet to 3 feet or less over the past 10 years on most state highways.

- ▶ WSDOT does precise spot treatments of noxious weeds rather than making blanket herbicide applications.
- ▶ WSDOT has a plan for responsible roadside maintenance that relies on a variety of strategies.
- ▶ WSDOT provides annual training for its maintenance employees on:
- Roadside maintenance options (i.e. integrated vegetation management.)

- Proper handling and use of herbicides (maintenance employees must be licensed and take continuing education courses to maintain their licenses.)
- ▶ WSDOT is developing roadside vegetation management plans for all state highways to define the best possible maintenance practices for each location.
- ▶ WSDOT works closely with county noxious weed boards to keep noxious weeds from invading surrounding agricultural lands and natural ecosystems.
- ▶ WSDOT balances a variety of needs to determine the best way to treat roadside maintenance activities.
- ▶ WSDOT continues to monitor and evaluate state of the art, peer-reviewed science on herbicide toxicity and risk assessment.
- ▶ Careful records are kept of all herbicide applications.

Responsive:

- ▶ WSDOT is communicating with the public and collecting input about local roadside maintenance practices in conjunction with the development and implementation of roadside vegetation management plans.
- ▶ Public inspection of the program is welcome as a means of helping to ensure that it is carefully and properly carried out.

Cost effective:

A review of roadside maintenance methods and costs was recently conducted in five counties that have adopted "nospray" policies. This review showed that if the vegetation management methods implemented by county road maintenance crews were utilized by WSDOT personnel on highways in those five counties, this would cost WSDOT an additional \$1.3 million to purchase more equipment and another \$1.1 million per year in operating costs.

How You Can Help

WSDOT offers citizens an "Adopt-a-Highway" opportunity to voluntarily carry out non-herbicide (i.e. hand pulling, pruning), tree and brush control and noxious weed control activities in appropriate areas. In some cases WSDOT can also provide native plants and soil amendments for planting projects by volunteers.

"Owner maintain" agreements can also be established for those who own property adjacent to the highway and do not want herbicides used on their frontage. Currently many of these agreements are in place along highways throughout the state.

Maintaining Roadside Vegetation

March 2004



WSDOT uses a variety of techniques including mowing, weeding, planting native plants and selectively using herbicides. WSDOT is minimizing herbicide use and reducing costs by using integrated vegetation management, which simply means using the right tool for the right plant at the right place and time.





Releasing weed-eating insects.



Highway Maintenance

WSDOT manages 75,000 acres of roadside. The agency must meet many operational, safety, environmental and aesthetic objectives including:

- provide a safe shoulder for vehicles that veer off the roadway.
- ▶ keep signs and corners visible.
- screen on-coming traffic and reduce headlight glare on divided highways.
- maintain slopes and prevent mudslides.
- protect water quality.
- protect wildlife habitat.
- preserve or restore native plants.
- keep vegetation back from the edge of the road to help drivers spot and avoid deer and other animals
- prevent weeds from growing into and damaging pavement.
- drain water off of the roadway to prevent puddles and standing water.

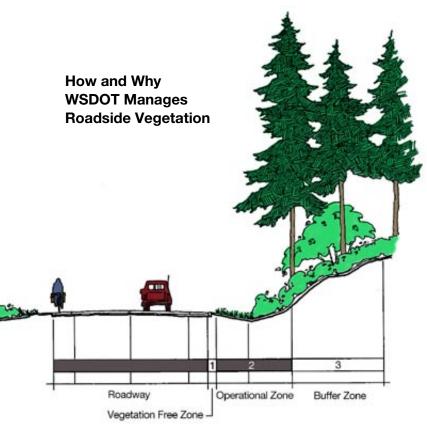
Implementing Integrated Vegetation Management

WSDOT has created a statewide schedule for Roadside Vegetation Management plans (RVMP). The timetable implements plans by the end of 2007.

The Integrated Vegetation Management Plan is scheduled by year as shown in the map below. Area by area production of the plans will continue until statewide coverage is achieved.

Integrated Vegetation Management Plan Schedule





Vegetation Free Zone Gravel Shoulder Maintained using machines and chemicals to improve drainage and protect pavement.

Operational Zone Low Vegetation Maintained using a variety of methods for sight distance, safety, and weed control.

Buffer Zone
Native/Natural
Vegetation
Maintained using
integrated vegetation
management to
encourage native
self-sustaining plant
communities.



Kochia, a noxious tumble weed infests many roadsides in eastern Washington.

Clallam County IVM Plan

Working with Olympic Peninsula communities and interest groups, WSDOT recent developed an integrated vegetation management plan for highways in Clallam County. Early results include:

- decreased total herbicide use more than 50 percent
- used only careful spot applications of herbicides to fight noxious weeds.
- planted desirable species like salal to crowd out weeds and undesirable plants.
- ▶ left plants adjacent to pavement within 60 feet of salmon-bearing streams. Spot-treated invasive plants growing next to the pavement edge in these areas.



Volunteers restore native plants along SR 112 in Clallam County.

Herbicide Use Trends

WSDOT's use of herbicides fluctuated significantly over the last ten years because:

- occasional budget cuts reduced WSDOT's ability to maintain roadsides; the agency used herbicides to catch up with weed infestations.
- ▶ WSDOT did not formally implement roadside vegetation management plans to guide long term vegetation management efforts.

As WSDOT introduces integrated vegetation management plans throughout the state and native plates are cultivated, the department will reduce maintenance costs and herbicide use. Early indications are good in areas where integrated vegetation management is underway.

Statewide Herbicide Use Trends Active Ingredient (in lbs.) 80,000 70,000 Weed Control Tree and Brush 50,000 40,000 20,000 10,000 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003

United States District Court Pesticide Ruling

January 2004

The United States District Court in Seattle issued a ruling in January regarding the use of some pesticides in proximity to designated salmon bearing streams. As a result WSDOT will not use herbicide products that contain diuron or 2-4-D (common homeowner yard care product) within 60 feet of any salmon bearing stream for endangered species types listed in the lawsuit. In order to comply with the temporary injunction maintenance crews will identify affected areas on state highways, mark buffer areas, develop and distribute policy to region offices, provide training to maintenance crews in March 2004, and monitor integrated vegetation management and policy implementation in the field.



For more information on the ruling see the Washington State Department of Agriculture website: agr.wa.gov/PestFert/EnvResources/Lawsuit.htm